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## Remarks/Arguments

Applicants respectfully request entry of the above preliminary amendment to correct two obvious typographical errors in the specification of the application as originally filed.

Applicants have amended the specification to correct the recitation of the methanation reaction to include 3 H<sub>2</sub> molecules to provide the requisite balance in hydrogen atoms on both sides of the reaction. Because balancing of chemical species on both sides of the reaction is a requirement, Applicants respectfully urge that this amendment incorporates no impermissible new subject matter into the application.

In addition, Applicants have amended the specification to provide that the methanation reaction

$$CO + 3H_2 \rightarrow CH_4 + H_2O$$

Applicants respectfully urge that the exothermic nature of this reaction is well known to those skilled in the art and, thus, this amendment does not constitute the impermissible incorporation of new subject matter into the application. That the exothermic nature of this reaction is well known to those skilled in the art is shown at Page 72 of the <u>Catalyst Handbook</u>, Springer-Verlag New York Inc., 1970, a copy

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of which is enclosed herewith, where it is stated that the methane-steam reaction is always endothermic as demonstrated in part by the reaction

$$CH_4 + H_2O \rightleftharpoons CO + 3H_2$$
  $\Delta H_{25^{\circ}C} = +49.2 \text{ kcal/mole}$ 

from which it follows that the reverse reaction

$$CO + 3H_2 \rightarrow CH_4 + H_2O$$

is exothermic.

Applicants sincerely believe that this patent application is now in better condition for examination and, thus, respectfully request early allowance.

Respectfully submitted,

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